

Application No.: 09/697,340  
Supplemental Amendment dated March 17, 2004

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. – 19. (Cancelled)

20. (Previously Presented) A method for detecting binding of an antibody that specifically reacts with an Fkh<sup>sf</sup> polypeptide that comprises the amino acid sequence set forth in SEQ ID NO:2, said method comprising the steps of:

(a) contacting a biological sample with an antibody, or an antibody fragment thereof, that specifically binds to an Fkh<sup>sf</sup> polypeptide that comprises the amino acid sequence set forth in SEQ ID NO:2, under conditions that allow binding of said antibody or antibody fragment to the Fkh<sup>sf</sup> polypeptide; and

(b) detecting binding of the antibody, or antibody fragment thereof.

21. (Previously Presented) The method of either claim 20 or claim 36 wherein said antibody is selected from the group consisting of:

- (a) polyclonal antibody,
- (b) a murine monoclonal antibody,
- (c) a humanized antibody derived from (b), and
- (d) a human monoclonal antibody.

22. (Previously Presented) The method of either claim 20 or claim 36, wherein said antibody fragment is selected from the group consisting of F(ab')<sub>2</sub>, F(ab)<sub>2</sub>, Fab', Fab, Fv, sFv, and minimal recognition unit.

23. – 35. (Cancelled)

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36. (Currently Amended) A method for detecting binding of an antibody that specifically reacts with a mutant Fkh<sup>sf</sup> polypeptide, said mutant Fkh<sup>sf</sup> polypeptide being encoded by a polynucleotide comprising (i)-the sequence set forth in SEQ ID NO:1 and (ii)wherein the sequence has an insertion of the complement of a TT dinucleotide into a region of SEQ ID NO:1, said region comprising the complement of the sequence set forth in SEQ ID NO:11, and said insertion resulting in the complement of the sequence set forth in SEQ ID NO:12, said method comprising the steps of:

(a) contacting a biological sample with an antibody, or an antibody fragment thereof, that specifically binds to a mutant Fkh<sup>sf</sup> polypeptide encoded by a polynucleotide comprising (i)-the sequence set forth in SEQ ID NO:1 and (ii)wherein the sequence has an insertion of the complement of a TT dinucleotide into a region of SEQ ID NO:1, said region comprising the complement of the sequence set forth in SEQ ID NO:11, and said insertion resulting in the complement of the sequence set forth in SEQ ID NO:12, under conditions that allow binding of the antibody or antibody fragment to the mutant Fkh<sup>sf</sup> polypeptide, and

(b) detecting binding of the antibody, or antibody fragment thereof.

37. (New) A method for detecting binding of an antibody that specifically reacts with an Fkh<sup>sf</sup> polypeptide that comprises the amino acid sequence set forth in SEQ ID NO:2, said method comprising the steps of:

(a) contacting a biological sample with an antibody, or an antibody fragment thereof, that specifically binds to an Fkh<sup>sf</sup> polypeptide that comprises the amino acid sequence set forth in SEQ ID NO:2, wherein the antibody or the antibody fragment thereof comprises a detectable label selected from the group consisting of radioisotope, fluorescent label, chemiluminescent label, enzyme label, bioluminescent label, and colloidal gold, under conditions that allow binding of said antibody or antibody fragment to the Fkh<sup>sf</sup> polypeptide; and

(b) detecting binding of the antibody, or antibody fragment thereof.

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Claim 38 (New) A method for detecting binding of an antibody that specifically reacts with a mutant Fkh<sup>sf</sup> polypeptide, said mutant Fkh<sup>sf</sup> polypeptide being encoded by a polynucleotide comprising the sequence set forth in SEQ ID NO:1 wherein the sequence has an insertion of the complement of a TT dinucleotide into a region of SEQ ID NO:1, said region comprising the complement of the sequence set forth in SEQ ID NO:11, and said insertion resulting in the complement of the sequence set forth in SEQ ID NO:12, said method comprising the steps of:

(a) contacting a biological sample with an antibody, or an antibody fragment thereof, that specifically binds to a mutant Fkh<sup>sf</sup> polypeptide encoded by a polynucleotide comprising the sequence set forth in SEQ ID NO:1 wherein the sequence has an insertion of the complement of a TT dinucleotide into a region of SEQ ID NO:1, said region comprising the complement of the sequence set forth in SEQ ID NO:11, and said insertion resulting in the complement of the sequence set forth in SEQ ID NO:12, wherein the antibody or the antibody fragment thereof comprises a detectable label selected from the group consisting of radioisotope, fluorescent label, chemiluminescent label, enzyme label, bioluminescent label, and colloidal gold,

under conditions that allow binding of the antibody or antibody fragment to the mutant Fkh<sup>sf</sup> polypeptide, and

(b) detecting binding of the antibody, or antibody fragment thereof.